**Informatics, Ch 4, Data Analytics: Presenting the findings Alex Hudson**

**Manipulating data pg 199-223**

1. **With your chosen MMOS be aware of the requirements of the functions you need to be able to undertake:** I will be needing to make sure that all the information is available to anyone whom wishes to access it, able to be read in multiple popular non-English languages and easy to read, in particular for the sight impaired.
2. **What is the role of Heading styles and CSS sheets?** This allows the developer to add custom and unique colours, graphics and content to their work. This gives their overall website colour, constant and emphasis. Allowing the developer to choose one (or many) styles to present in their work.

**Formats and Conventions, p 202**

1. **Define the terms format and convention and use an example to distinguish between them.**
   1. **Format:** Form in which information is presented, such as a website, pie chart, text in paragraph, comic, table etc. May also be present in multiple forms within a table or graph. An example would be a cartoon: speech bubbles
   2. **Convention:** Accepted techniques that an audience will expect to find when a format is used. The conventions for a comic would be the speech bubbles from a person’s mouth and a series of time frames to depict the story.
2. **Distinguish between:**
   1. **Mandatory:** Conventions which need to obeyed, such as policy statements and privacy acts, normally easily available by the public.
   2. **Preferred:** When you have a distinct preference on how something should be done or designed.
   3. **optional conventions:** Allow people to choose what they feel like is correct, it’s both up to the user and designer.
3. **Choose four conventions that you think will be important when you design your MMOS.** Underlined URL text, a constant site logo to appear, constant heading styles and size, Correct use of decimals for any numerical data.
4. **Why is it important to follow these conventions?** Because it will give my users a clear, concise idea of my overall hypothesis and all the information I wish to convey, it furthermore will make my work/website/data collection appear to be professional.

**Design principles, p 204**

**Functionality: Useability**

1. **Briefly describe the principles of:**
   1. **Robustness; what are the countermeasures for robustness?** Able to cope with user and application error. Able to resist crashes, failures and any possible security threats. Robustness means it can deal with anything that arises, being able to validate data, prevent simple and complex errors and anticipation troublesome and malicious/accidental user errors.
   2. **Flexibility; how do you build a MMOS to cater for flexibility?** Your solution must be able to cope with multiple ways of performing tasks. Every website, for example, should be able to be used across devices with different screen resolutions.
   3. **Ease of use:** Making sure that the solution is easy to use, for both user and developer. Making sure that simple and complicated tasks can be completed fast, able to securely store user data and able to impress the user that they will clearly remember what to do, on their next visit.

**Functionality: Accessibility**

1. **For each of the following principles briefly describe their characteristics.**
   1. **Navigation:** Much like flexibility, your solution must be able to cater different device screens smoothly. Allowing users to access and see all the content clearly and efficiently. Scrolling, opening links and accessing content should be fast, with minimal lag.
   2. **Error tolerance** Able to help users avoid and correct their mistakes, by showing them clear instructions which can be easily understood by anyone. Applications can grey out and remove options.

**Functionality: Appearance:**

1. **For each of the appearance principles briefly indicate their nature:**
   1. **Alignment:** You can have your text aligned left, centre or right. Best idea to choose only one alignment per page/website, it will make the website appear more professional.
   2. **Repetition of design elements:** A constant repetition of certain elements such as colour, spacing and alignment draw attention to the user. This provides a sense of professionalism.
   3. **Contrast:** A sense of contrast is important as it will allow you to have emphasis on certain links, information or pages.
   4. **Space:** A sense of space limits the user believing that the website is constricted and crammed, this is important at is equally emphasises any other information you wish to show off.
   5. **Balance:** Too many elements or colours mixed into one, is not very appealing for the user. A good sense of all design ideas should be done with balance.

**Generating design ideas, p 209**

1. **What is a design idea? Make a list of ideas you have for your MMOS.**
2. **List out some creative design techniques.**
3. **Describe some tips for creative thinking, p 215**

**Evaluating design ideas, p 218**

1. **Why is it important to evaluate your design ideas before progressing with your project?**
2. **What are some criteria that could be used to help choose the best design idea?**

**Design tools, p 220**

1. **Briefly describe the purpose of each of the following:**
   1. **IPO charts**
   2. **Mock ups or annotated diagrams**
   3. **Site map**
   4. **Storyboard**
   5. **Organisational and hierarchy charts**
   6. **Layout diagrams**